

Claims

1. A method of routing multimedia calls within an automatic call distributor system having a automatic call distributor coupled to the public switched telephone network and a host coupled to the Internet, such method comprising the steps of:
- receiving an Internet call from an Internet caller by the host through the Internet;
- requesting an agent assignment for handling the Internet call from the automatic call distributor coupled to the public switched telephone network; and
- transferring the Internet call to a terminal of the agent assigned by the automatic call distributor.
2. The method of routing multimedia calls as in claim 1 further comprising queuing the request for an agent assignment.
3. The method of routing multimedia calls as in claim 1 wherein the step of queuing the request for an agent assignment further comprises estimating a time length of the queue.
4. The method of routing multimedia calls as in claim 3 wherein the step of estimating a time length of the queue further comprises transferring the estimated time to the Internet caller.
5. The method of routing multimedia calls as in claim 1 wherein the step of transferring the Internet call to the agent assigned by the automatic call distributor

further comprises setting up a real-time Internet conference with the caller.

6. The method of routing multimedia calls as in claim 5 wherein the step of setting up the real-time Internet conference with the caller further comprises exchanging audio and text between the assigned agent and Internet caller through an interactive window.

7. The method of routing multimedia calls as in claim 5 wherein the step of setting up a real-time conference with the caller further comprises presenting an information screen to the caller about the real-time call.

8. The method of routing multimedia calls as in claim 5 wherein the step of presenting the information screen to the caller further comprises presenting an estimated time until an assigned agent will be available to participate in the conference.

9. The method of routing multimedia calls as in claim 5 wherein the step of presenting the information screen to the caller about the real-time call further comprises presenting an information request screen to the Internet caller.

10. The method of routing multimedia calls as in claim 5 wherein the step of presenting the information screen to the caller further comprises presenting an animated cartoon figure for entertaining the Internet caller

while the caller waits for completion of setup of the real-time conference.

11. The method of routing multimedia calls as in claim
5 1 wherein the step of requesting an agent assignment
for handling the Internet call from the automatic call
distributor further comprises seizing a connection on
an incoming trunk to the automatic call distributor and
sending simulated call associated information to the
10 automatic call distributor.

12. The method of routing multimedia calls as in claim
1 wherein the step of requesting an agent assignment
for handling the Internet call from the automatic call
15 distributor further comprises sending the request over
a TCP/IP connection to a call application operating
within the automatic call distributor.

13. The method of routing multimedia calls as in claim
20 12 wherein the step of transferring the Internet call
to the agent assigned by the automatic call distributor
further comprises connecting a telephone of the
assigned agent to a dummy load to avoid assigning the
assigned agent to another call during the Internet
25 call.

14. A system for routing multimedia calls within an
automatic call distributor system having a automatic
call distributor coupled to the public switched
30 telephone network and a host coupled to the Internet,
such apparatus comprising:

means for receiving an Internet call from an Internet caller by the host through the Internet;

means for requesting an agent assignment for handling the Internet call from the automatic call distributor; and

means for transferring the Internet call to the agent assigned by the automatic call distributor.

15. The apparatus for routing multimedia calls as in claim 14 further comprising means for queuing the request for an agent assignment.

16. The apparatus for routing multimedia calls as in claim 14 wherein the means for queuing the request for an agent assignment further comprises means for estimating a time length of the queue.

17. The apparatus for routing multimedia calls as in claim 16 wherein the means for estimating a time length of the queue further comprises means for transferring the estimated time to the Internet caller.

18. The apparatus for routing multimedia calls as in claim 14 wherein the means for transferring the Internet call to the agent assigned by the automatic call distributor further comprises means for setting up a real-time Internet conference with the caller.

19. The apparatus for routing multimedia calls as in claim 18 wherein the means for setting up the real-time Internet conference with the caller further comprises means for exchanging audio and text between the

assigned agent and Internet caller through an interactive window.

20. The apparatus for routing multimedia calls as in
5 claim 18 wherein the means for setting up a real-time conference with the caller further comprises means for presenting an information screen to the caller about the real-time call.

10 21. The apparatus for routing multimedia calls as in claim 18 wherein the means for presenting the information screen to the caller further comprises means for presenting an estimated time until an assigned agent will be available to participate in the
15 conference.

22. The apparatus for routing multimedia calls as in claim 18 wherein the means for presenting the information screen to the caller about the real-time
20 call further comprises means for requesting information from the Internet caller.

23. The apparatus for routing multimedia calls as in claim 18 wherein the means for presenting the
25 information screen to the caller further comprises means for presenting an animated cartoon figure for entertaining the Internet caller.

24. The apparatus for routing multimedia calls as in
30 claim 14 wherein the means for requesting an agent assignment for handling the Internet call from the automatic call distributor further comprises means for

seizing a connection on an incoming trunk to the automatic call distributor and sending simulated call associated information to the automatic call distributor.

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25. The apparatus for routing multimedia calls as in claim 14 wherein the means for requesting an agent assignment for handling the Internet call from the automatic call distributor further comprises means for
10 sending the request over a TCP/IP connection to a call application operating within the automatic call distributor.

26. The apparatus for routing multimedia calls as in
15 claim 25 wherein the means for transferring the Internet call to the agent assigned by the automatic call distributor further comprises means for connecting a telephone of the assigned agent to a dummy load.

20 27. A system for routing multimedia calls within an automatic call distributor system having a automatic call distributor coupled to the public switched telephone network and a host coupled to the Internet, such apparatus comprising:

25 a host adapted to receive an Internet call from an Internet caller through the Internet;

an agent processor operating from within the host and adapted to request an agent assignment for handling the Internet call from the automatic call distributor;

30 and

a routing processor adapted to transfer the Internet call to a terminal of the agent assigned by the automatic call distributor.

5 28. The apparatus for routing multimedia calls as in claim 27 further comprising a queuing processor adapted to queue the request for an agent assignment.

29. The apparatus for routing multimedia calls as in
10 claim 27 wherein the routing processor further comprises an Internet conferencing protocol for setting up a real-time Internet conference with the caller.

30. The apparatus for routing multimedia calls as in
15 claim 29 wherein the conferencing protocol further comprises an interactive window adapted to exchanging audio and text between the assigned agent and Internet caller through the Internet.

20 31. The apparatus for routing multimedia calls as in claim 29 wherein the conferencing protocol further comprises an information screen adapted to present information to the caller about the real-time call.

25 32. The apparatus for routing multimedia calls as in claim 29 wherein the information screen further comprises a timer adapted to provide an estimated time until an assigned agent will be available to participate in the conference.

30 33. The apparatus for routing multimedia calls as in claim 29 wherein the information screen further

comprises an information entry window adapted to request information from the Internet caller.

34. The apparatus for routing multimedia calls as in
5 claim 29 wherein the information screen to the caller further comprises an animated cartoon figure for entertaining the Internet caller.

35. A method of routing multimedia calls within an
10 automatic call distributor system having a automatic call distributor coupled to the public switched telephone network and a host coupled to the Internet, such method comprising the steps of:

receiving an Internet call from an Internet caller
15 by the host through the Internet;

requesting an agent assignment from the automatic call distributor; and

queuing the Internet call in a common call queue along with other calls received through the public
20 switched telephone network based upon a time of arrival.

36. The method of routing multimedia calls as in claim 35 further comprising routing the Internet call to an
25 assigned agent when the queued Internet call reaches a front of the queue.

37. The method of routing multimedia calls as in claim 35 wherein the step of routing the Internet call to an
30 agent when the queued Internet call reaches a front of the queue further comprises sending an Internet address of the Internet caller to the assigned agent.

38. The method of routing multimedia calls as in claim
35 further comprises estimating a time period before
the queued Internet call will reach a front of the
5 queue.

39. The method of routing multimedia calls as in claim
38 wherein the step of estimating a time period before
the queued Internet call will reach a front of the
10 queue further comprises transferring the estimate to
the Internet caller.

40. A method of routing multimedia calls within an
automatic call distributor system having a automatic
15 call distributor coupled to the public switched
telephone network and a host coupled to the Internet,
such method comprising the steps of:
receiving an Internet call from an Internet caller
by the host through the Internet;
20 requesting an agent assignment for handling the
Internet call from the automatic call distributor; and
transferring the Internet call to the agent
assigned by the automatic call distributor.

41. A method of displaying information to a caller of
an automatic call distributor, such method comprising
the steps of:
receiving a request for a real-time conference
from a caller;
30 sending a call request to the automatic call
distributor for an agent to handle the real-time
conference; and

presenting information to the caller as the caller
waits for setup of the real-time conference.

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